Remarks:

Reconsideration of the application, as amended herein, is respectfully requested.

Applicant would like to thank Examiner Nguyen for the courtesy shown to Applicant's representative in a telephone conversation of October 10, 2007. During that telephone conversation, Applicant's representative questioned whether the finality of the present Office Action was proper, or made in error. During that conversation, Examiner Nguyen requested that Applicant request reconsideration of the finality in the response to the outstanding Office Action. As such, Applicant is hereby requesting reconsideration of the finality of the present Office Action. The facts are as follows:

- On **January 1, 2007**, an Office Action was mailed in connection with the present application, indicating the allowability of claims 32 - 54 and the objection to claims 2 - 11, 13 - 14, 16 - 18 and 25 - 26, which were indicated as being dependent upon a rejected base claim, but which would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

- On **March 30, 2007**, Applicant responded to the Office Action of January 1, 2007, amending certain claims and presenting arguments as to the patentability of those claims.

- On **May 10, 2007**, Applicant filed an Information Disclosure Statement under 37 C.F.R. § 1.97(c)(1), and including the declaration under 37 C.F.R. § 1.97(e), reciting that each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three

months prior to the filing of the information disclosure statement. **As such, no fee under 37 C.F.R. § 1.17(p) was due for the IDS of May 10, 2007, nor was any fee under 37 C.F.R. § 1.17(p) paid for the IDS of May 10, 2007.**

- On **May 18, 2007**, the Patent Office mailed a Notice of Allowance and Fee(s) Due in connection with the present case, along with a Notice of Allowability of claims 1 - 54 pending in the present application.

- On **August 20, 2007**, Applicant **paid the issue fee** due in connection with the present application.

- On **August 30, 2007**, the Patent Office mailed a **Notice of Withdrawal from Issue under 37 C.F.R. § 1.313** in connection with the present application.

- On **September 10, 2007**, the present final Office Action was mailed, rejecting certain of Applicant's previously allowed claims **based on a reference submitted by Applicant in the IDS of May 10, 2007**.

- Page 5 of the final Office Action of September 10, 2007 indicated, stated, in part, "Applicant's amendment necessitated the new ground(s) of rejection presented in the Office action. Accordingly, **THIS ACTION IS MADE FINAL. See MPEP** § 706.07(a)."

However, Applicant respectfully disagrees that the present Office Action should have been made final. More particularly, contrary to page 5 of the Office Action, Applicant did not make any claim amendments to the claims between receipt of the Notice of Allowability and the present final Office Action. Thus, there were no "amendments" made by Applicant's that could have necessitated the new rejection of the claims. Additionally, Applicant notes that U. S. Patent No. 6,043,499 to Seki et al ("**SEKI**") was first cited by Applicant in an Information Disclosure Statement (IDS) under 37 C.F.R. §

1.97(c)(1), on May 10, 2007. However, pursuant to MPEP § 706.07(a), an Office Action based on a reference cited in an IDS can only be made final **if the IDS was filed under 37 C.F.R. § 1.97(a) and a fee was paid under 37 C.F.R. § 1.17(p)**. As such, under MPEP § 706.07(a), the Office Action can only be made final if the IDS was filed under **1.97(c)(2)**, for which the fee under 37 C.F.R. § 1.17(p) is required, but **not** if the IDS was filed under 1.97(c)(1) (i.e., for which no fee is required under 37 C.F.R. § 1.17(p), as was Applicant's IDS of May 10, 2007.

This can additionally be seen from MPEP § 609.04(b), which states, in part:

> **A. Information is Used in a New Ground of Rejection**
>
> **1. Final Rejection is Not Appropriate**
>
> **If information submitted during the period set forth in 37 CFR 1.97(c) with a statement under 37 CFR 1.97(e) is used in a new ground of rejection on unamended claims, the next Office action will not be made final** since in this situation it is clear that applicant has submitted the information to the Office promptly after it has become known and the information is being submitted prior to a final determination on patentability by the Office. [emphasis added by Applicant]

Clearly, pursuant to MPEP § 609.04(b), Applicant's **unamended** claims cannot be rejected over the **SEKI** reference, which Applicant submitted in an IDS under 37 C.F.R. § 1.97(c)(1), **with a declaration under 37 C.F.R. § 1.97(e)(1)**. Rather, MPEP

§§ 609.04(b) and 706.07(a) make it clear that the Office Action can only be made final if Applicant **amended** the claims to necessitate the finality, **or if the information used to reject the claims was submitted in an IDS filed under 37 C.F.R. § 1.97(c) with a fee under 37 CFR 1.17(p)**. Neither situation occurred in the instant case. First, Applicant did not amend the claims between the Notice of Allowability and the new Office Action, and thus, did not necessitate the new action (contrary to the statement made on page 5 of the Office Action). Additionally, Applicant did not **file an IDS under 37 C.F.R. § 1.97(c) and pay a fee under 37 C.F.R. § 1.17(p)**, as required as a condition for finality of the Office Action by MPEP § 706.07(a), but, rather, filed the IDS with a declaration under 1.97(e). As such, Applicant believes that the requirements for making the instant Office Action final were not met and, pursuant to MPEP § 609.04(b), the finality of the present Office Action was "**not appropriate**". Thus, Applicant respectfully requests that the finality of the instant Office Action be withdrawn.

Claims 1 - 32 and 34 - 54 are presently pending in the application. Claims 1, 2, 32, 34, 35 and 37 have been amended. Claim 33 has been canceled, herein. Claims 55 - 62 were previously canceled.

Applicant gratefully acknowledges that page 5 of the Office Action indicated that claims 9, 13, 18, 25 - 26, 40, 44 and 49 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

On page 2 of the Office Action, claims 1 - 6, 12, 27 - 29, 31 - 37, 43, 50 - 52 and 54 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by the **SEKI** reference.

On page 3 of the Office Action, claims 7 - 8, 10 - 11, 14 - 17, 19 - 24, 30, 38 - 39, 41 - 42, 45 - 48 and 53 were rejected under 35 U.S.C. § 103(a) as allegedly being obvious over **SEKI**.

Applicant respectfully traverses the above rejections.

More particularly, Applicant has amended claim 1 to recite, among other limitations:

> a secondary electrode for producing secondary electrons when the accelerated primary electrons arrive, said secondary electrode having at least one aperture opening formed therein, **the walls of said at least one aperture extending obliquely to the surface of said secondary electrode.** [emphasis added by Applicant]

Applicant's independent claim 32 has been similarly amended to recite, among other limitations:

> said secondary electrode formed with at least one aperture opening for preventing primary electrons from passing through, **the walls of said at least one aperture extending obliquely to the surface of said secondary electrode.** [emphasis added by Applicant]

The amendments to claims 1 and 32 are supported by the specification of the instant application, for example, by former claim 33 (now canceled), former claim 2, and Figs. 1 and 2B of the instant application. For example, Fig. 2B of the instant application, showing the walls of the aperture extending obliquely to the surfaces of the secondary electrode, is being reproduced herebelow, for convenience.

FIG 2B

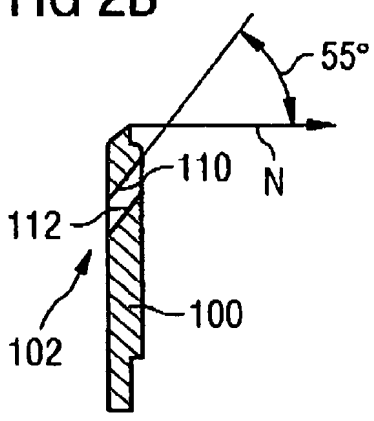


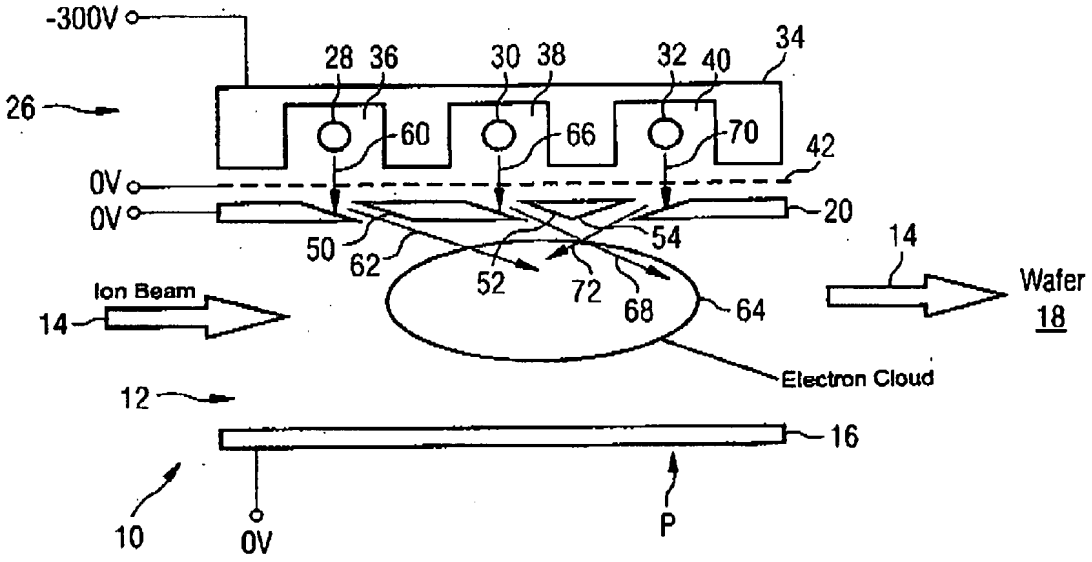
Fig. 2B is described on page 17 of the instant application, lines 4 - 9, which state:

> Fig. 2B shows the secondary electrode 100 along the cross section lying in the section plane A. The

thickness of the secondary electrode 100 is about 5 mm. **As is illustrated in Fig. 2B, side walls 110 and 112 of the slot 102 are inclined at an angle of -55° with respect to a normal N**. The distance between the side walls 110 and 112 is 4 mm. [emphasis added by Applicant]

See also, for example, Fig. 1 of the instant application, which is additionally being reproduced herebelow, for convenience.

FIG 1



The apertures 50, 52 and 54 of the second electrode 20 of Fig. 1 of the instant application are described, for example, on page 14 of the instant application, line 12 - page 15, line 8. For example, page 14 of the instant application, lines 12 - 21, state:

> **The secondary electrode 20 contains three slots 50, 52 and 54 which are arranged obliquely in the secondary electrode 20** and are adjacent to the glow wires 28, 30 and 32, in this sequence. The slots 50 and 52 are thus located closer to the point at which the ion beam 14 enters the aperture area 12 than the slot 54. The side walls of the slots 50 and 52 are parallel to one another. **The side walls of the slots 50 and 52 thus define an angle of -60° with respect to a normal to the surface of the secondary electrode 20 which faces away from the aperture area 12.** [emphasis added by Applicant]

As such, that the walls of the aperture through the second electrode extend obliquely to the surface of the second electrode is supported by the specification of the instant application.

However, the **SEKI** reference, cited in the Office Action, fails to teach or suggest, among other limitations of Applicant's claims, **a second electrode including an aperture therethrough, wherein the walls of the aperture extend obliquely to the surface of the second electrode**, as required by Applicant's claims. More particularly, the **SEKI** reference discloses a charge-up prevention method and ion implanting apparatus wherein one embodiment utilizes a filament for generating electrons (41 of Figs. 6 and 7 of **SEKI**), a taking out electrode (31 of Figs. 6 and 7 of **SEKI**) and a secondary electron generation plate for generating secondary electrons (42 of Figs. 6 and 7 of **SEKI**). The secondary electron

generation plate 42 of **SEKI** is described in col. 3 of Seki, lines 33 - 42, which states:

> In FIG. 7, the filament type electron source 5c has a filament 41 for generating electrons. **Electrons generated by the filament type electron source 5c and taken out by a taking out electrode 31 are impinged on a wall such as a secondary electron generation plate 42 to generate secondary electrons 6a.** The secondary electrons 6a are irradiated onto wafers 7 and a dummy wafer 2. In this case, since the filament 41 does not directly face the wafers 7, it is possible to avoid falling of impurities from the filament 41 onto the wafers. [emphasis added by Applicant]

However, nothing in **SEKI** teaches or suggests, among other limitations of Applicant's claims, **utilizing a second electrode including an aperture therethrough, wherein the walls of the aperture extend obliquely to the surface of the second electrode**. The instant application describes at least one advantage of the instant invention on page 3 of the instant application, lines 5 - 22, which state:

> The invention is based on the idea that the primary electrons have comparatively high energy, for example, several hundred electron volts (eV), because of the acceleration voltage. The high energy makes it possible, for example, for the primary electrons which reach a semiconductor wafer directly to produce a strong negative charge there, which is likewise not wanted. For example, the primary electrons can be carried by an ion beam. **In order to prevent such processes or similar processes, in a first embodiment of the apparatus, the acceleration electrode contains at least one aperture opening, which extends obliquely through the acceleration electrode. The primary electrons thus arrive at a side wall of the aperture opening before they leave the apparatus and, for example, reach free space**. Furthermore, when the primary electrons arrive, they produce secondary

electrons which have comparatively low energy. [emphasis added by Applicant]

There is no recognition in **SEKI** of the problems addressed by Applicant's claimed invention. **SEKI** fails to describe the opening through the secondary electron plate 42 in any fashion. Applicant believes that nothing in the **SEKI** reference would teach, suggest or motivate a person of ordinary skill in this art, upon reading **SEKI**, to modify the teachings of that reference to come up with Applicant's presently claimed invention. As such, Applicant's presently claimed invention is believed to be patentable over the **SEKI** reference.

It is accordingly believed that none of the references, whether taken alone or in any combination, teach or suggest the features of claims 1 and 32. Claims 1 and 32 are, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on claims 1 or 32.

Finally, Applicant appreciatively acknowledges the Examiner's statement that claims 9, 13, 18, 25, 26, 40, 44 and 49 "would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims." In light of the above, Applicant respectfully believes that

rewriting of claims 9, 13, 18, 25, 26, 40, 44 and 49 is unnecessary at this time.

In view of the foregoing, reconsideration and allowance of claims 1 - 32 and 34 - 54 are solicited.

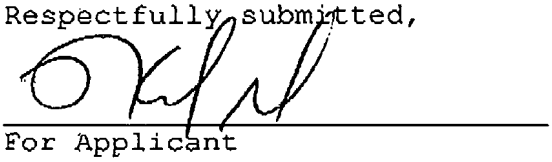
In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out. In the alternative, the entry of the amendment is requested, as it is believed to place the application in better condition for appeal, without requiring extension of the field of search.

If an extension of time for this paper is required, petition for extension is herewith made.

Please charge any fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner Greenberg Stemer LLP, No. 12-1099.

Applic. No. 10/718,777
Response Dated November 28, 2007
Responsive to Office Action of September 10, 2007

Respectfully submitted,



For Applicant

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